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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
DUNN, DAVID R	

ART UNIT	PAPER NUMBER
3616	

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/976,299	KNOX, MATTHEW J.	
	Examiner	Art Unit	
	David Dunn	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 July 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26,30-48,50-53,55 and 57-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26,30-48,50-53,55 and 57-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

This office action is responsive to the amendment filed 7/28/03.

Drawings

1. The drawings were received on 7/28/03. These drawings are approved.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4, 5, 8-26, 30-48, 52, 53, and 57-59 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is indefinite as it recites that "said pre-tensioner and said air bag is activated prior to the occurrence of said event." This is unclear as claim 1 claims that these events all occur "upon sensing said event", i.e., after the event occurs. Therefore, claim 4 does not follow correctly from the order of events in claim 1.

Similarly, claim 5 is indefinite as it recites that "said automatic locking restraint is activated prior to the occurrence of said event."

Claim 8 is indefinite as it recites in step b "enabling or disabling..." then proceeds to claim "the enabled occupant restraints..." This is unclear as if the disabling is chosen from the

"or" step, then there are no "enabled occupant restraints" and it is unclear how the occupant restraints would be activated if they were disabled.

Similarly, claims 30 and 52 are indefinite for the same reason as described for claim 8.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 3, 6, 7, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corrion et al. (5,742,986) alone.

Corrion et al. discloses a method of controlling the activation of occupant restraints in a motor vehicle for a high g event, said method comprising upon sensing said event, activating an automatic locking restraint of a seat belt, activating a seat belt pretensioner; and activating an air bag (see column 5, lines 34-40; see also Figure 9).

Corrion et al. discloses that the deployment of the protection devices may comprise sequential deployment with a predetermined timing (see column 5, lines 45-48), but does not specifically state the order as claimed by applicant.

As Corrion et al. discloses a sequential, timed deployment, it would have been obvious to one of ordinary skill in the art at the time the invention was made to deploy the three protection devices in any order preferred, such as first activating the locking restraint, then the pretensioner, and then the air bag as desired in order to best protect the occupant.

With respect to claims 6 and 7, while Corrion et al. does not describe a specific time period, the use a predetermined time period is disclosed, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to activate the restraints at any necessary time, such as 0 to 10 milliseconds.

With respect to claim 55, Corrion et al. inherently has a memory medium to operate the controller (208).

6. Claims 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corrion et al. in view of Omura et al. (5,552,986).

Corrion et al. is discussed above and does not show the automatic locking restraint being enabled prior to the occurrence of the event.

Omura et al. teaches enabling and activating the ALR prior to occurrence of the event (see Figure 2; S5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Corrion et al. with the teachings of Omura et al. in order better protect the occupant by anticipating the high g event.

7. Claims 1, 3, 6, 7, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fohl (5,346,152) in view of Takeuchi et al. (5,338,063).

Fohl discloses a method of controlling the activation of occupant restraints in a motor vehicle for a high g event, said method comprising: upon sensing the event, activating the locking restraint of a seat belt and activating a pretensioner of the seat belt after the activating the automatic locking restraint (see column 4, lines 12-13).

Fohl fails to show activating an air bag after the pretensioner.

Takeuchi et al. teaches a method of first activating a pretensioner and then activating the air bag (see abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fohl with the teachings of Takeuchi et al. in order to provide an additional restraint step to further protect the occupant. (It is also noted that Fohl does not explicitly state that the locking restraint is activated after sensing the event, it is old and well known, and common, in the art to activate the locking restraint after sensing the high g event, and if it is found that it is not inherent in Fohl to do so, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fohl to activate the locking restraint after sensing the event in order to provide a simple method of protecting the occupant.)

With respect to claims 6 and 7, while Fohl and Takeuchi et al. do not describe a specific time period, the use a predetermined time period is disclosed, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to activate the restraints at any necessary time, such as 0 to 10 milliseconds.

With respect to claim 55, Takeuchi et al. discloses a memory medium (see RAM and ROM, Figure 3) and it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the memory medium to control all of the occupant protection devices.

8. Claims 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fohl in view of Takeuchi et al. and in further view of Omura et al. (5,552,986).

The combination of Fohl and Takeuchi et al. is discussed above and does not show the automatic locking restraint being enabled prior to the occurrence of the event.

Omura et al. teaches enabling and activating the ALR prior to occurrence of the event (see Figure 2; S5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Fohl and Takeuchi et al. with the teachings of Omura et al. in order better protect the occupant by anticipating the high g event.

9. Claims 8-16, 25, 26, 30-38, 47, 48, 52, and 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foo et al. in view of Corrion et al.

Foo et al. discloses a method of managing the occupant restraints in a vehicle, including (a) determining if a seat belt is buckled (see Step 210 in Figure 5B), and (b) in response to (a) enabling or disabling a pretensioner (see Figure 4, fire or no-fire conditions). Foo et al. also (c) determines if the weight in the seat is less than a threshold (as shown in Figure 4) to enable or disable the pretensioner. Foo et al. discloses a multi-stage airbag (20) that can be disabled or enabled based upon various weight and/or buckle conditions (see Figure 4). Foo et al. inherently includes a memory medium in the control matrix (72).

With respect to claim 57, Foo et al. discloses a weight sensor which can inherently determine if the seat is unoccupied; further Foo et al. also shows an occupant presence detector (142). Foo et al. also discloses determining if the seat belt is extended (see payout sensor; column 4, lines 55-56).

Foo et al. fails to disclose the sequence of activating the ALR, the pretensioner, and then the airbag.

Corrion et al. is discussed above.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foo et al. with the teachings of Corrion et al. in order to provide a sequenced order of activating the ALR, then the pretensioner, and then the airbag in order to better protect the occupant.

With respect to claims 10, 13, 14, 16, 26, 26, 32, 35, 36, 38, 47, and 48, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foo et al. with the teachings of Corrion et al. in order to enable or disable the ALR of Corrion et al. as required dependent upon certain conditions in order to better protect the occupant.

10. Claims 17 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foo et al. in view of Corrion et al. as applied above, and further in view of Mazur et al. (6,203,059).

The combination of Foo et al. and Corrion et al. is discussed above and fails to show signaling an alert.

Mazur et al. teaches signaling an alert (see column 5, lines 11-15) in an unsafe condition.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Foo et al. and Corrion et al. with the teachings of Mazur et al. in order to warn the occupant in the case of an unsafe condition.

11. Claims 18-24, 40-46, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foo et al. in view of Corrion et al. as applied above, and further in view of Sakai et al. (6,467,804).

The combination of Foo et al. and Corrion et al. is discussed above and fails to show a step of determining if the belt is tightened.

Sakai et al. discloses a method comprising: (a) determining a weight in a seat of the vehicle from measurements obtained by a weight sensor system (see column 4, lines 12-20 and Step 108 in Figure 5); (b) determining if a seat belt of the seat is tightened by comparing values obtained by the weight sensor system at the rear right and rear left of the seat (see column 4, lines 40-45); and if determining that the belt is tightened by comparing the loads to a threshold value, disabling the air bag (column 5, lines 5-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Foo et al. and Corrion et al. with the teachings of Sakai et al. in order to better determine the position of the occupant or determine if a child seat is present to better protect the occupant.

Response to Arguments

12. Applicant's arguments with respect to claims 1, 8, 30, 52 and 55 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Dunn whose telephone number is 703-305-0049. The examiner can normally be reached on Mon-Thur, alt. Fridays, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-1113.

David Dunn
Examiner
Art Unit 3616